

Dry Block Calibrators

-100°C to 40°C

Wide Temperature Range

Autocal -100/40 & CALsys -100/40 offer a wide temperature range from -100°C to 40°C

Lightweight, portable

The Autocal -100/40 & CALsys -100/40 is ideal for Industrial/ Laboratory field use. It only weighs about 16 kg.

Speed

The Autocal -100/40 & CALsys -100/40 cools down to -100°C in 70 minutes and heats up from ambient to +40°C in 30 minutes.

Accuracy and performance

The Autocal -100/40 & CALsys -100/40 is an easily portable unit that also provides excellent calibration accuracy with stability $\pm 0.04^\circ\text{C}$.

Cooling Technology

Tempsens provide low temperature dry block calibrator with use of FPSC system.

FPSC system able to cool down calibration block upto -100°C with minimum power.

Computer Interface

The communication port (USB/LAN) enables communication with Autocal -100/40 & CALsys -100/40 calibrator.

CALsys -100/40 Autocal -100/40

FPSC based Dry Block Calibrator



CALsys -100/40

Autocal -100/40

Autocal -100/40 & CALsys -100/40 offers easy to use portable low temperature calibrator with temperature range from -100 to 40°C. It is a highly stable standard Calibrator for calibrating RTD & Thermocouple. This calibrator can be used on site for high temperature calibration and also find its application in aerospace, oil gas petrochemical, pharmaceutical industry, electric power, automotive and material process industry. The FPSC volume is a metallic fixed block of special material, which has a fixed insert with 150mm long.

This is low temperature dry block furnace based on FPSC cooling system. This model provides specially design isothermal enclosure which can calibrate sensor against the calibrator. Temperature of the calibrator is set and controlled by a self tuned PID controller with automatic super fine adjustment.

The Autocal -100/40 is an automatic temperature calibration system for the Thermocouple and RTDs. The system consists of temperature Block and PC software, which together contribute to the whole cycle of auto calibration process. The system accept 4 channels, 4 Thermocouples or 4 RTDs. The connection for these channels through special type of locking connectors. The channel configuration can be done with LCD display via touch screen keypad. The thermocouple microvolt & RTD ohm reading for each channel is monitored with CJC compensation. After the calibration process complete the PC software generates a report of actual calibrated values for the inputs.

SPECIFICATIONS

Autocal -100/40 & CALsys -100/40

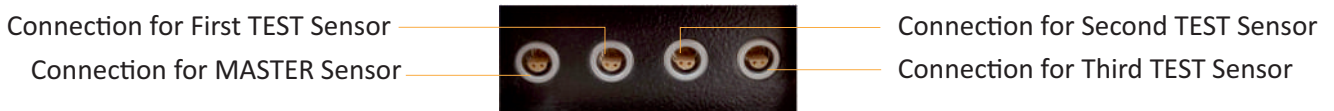
| | |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Temperature Range* | -100°C to 40°C |
| Stability (30 Min) | ±0.04 °C or Better |
| Radial Uniformity | ±0.05°C or better |
| Immersion Depth** | 150 mm |
| Method of Control | Self tuned PID controller |
| Cooling Time | 70 Min (Ambient 25°C to -100°C) |
| Stabilization Time | 15-20 Min |
| Resolution | 0.1 °C (0.01 Optional) |
| Display | LCD, °C or F user-selectable |
| Size (H x W x D) | 545(H) x 245(W) x 350(D) mm |
| Weight | 16Kg |
| Power Requirements | 230 VAC or 110 VAC 50/60 Hz 350W |
| Computer Interface | USB/LAN |
| Calibration | Accredited calibration certificate provided (Optional) |
| Environmental Operating Conditions | 12°C to 35°C, 0% to 90% RH (non-condensing) |
| Specifications valid in environmental conditions | 15°C ... 30°C |
| Input (Autocal -100/40) | Four channels (one master and three test sensors), High quality universal LEMO connector suitable both for T/C (J, K, N, T, R, S, B type) and RTD |
| Software (Autocal -100/40) | The calibrator will be provided with software for data recording (Manual Mode) and Excel generation in Auto Mode |

* At 25°C Ambient Temperature

**120mm Deep Plus 30 mm top insulation

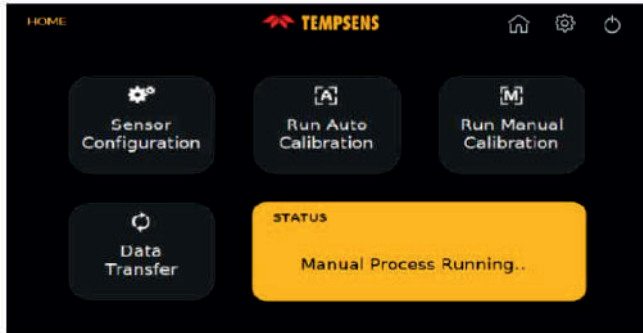
SENSOR CONNECTION (Autocal -100/40)

The system provides calibration upto four channels i.e. one master and three test sensors.

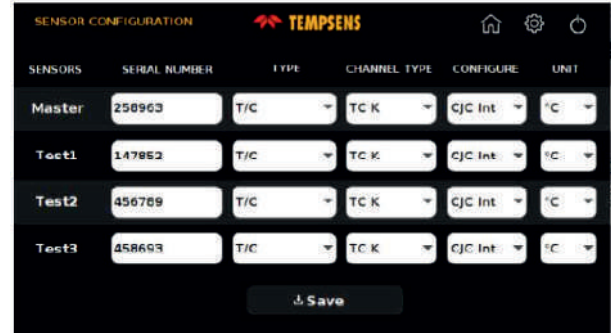


USER INTERFACE (Autocal -100/40)

Home Screen: In this screen user can select sensor configuration (for selection of type of sensors), mode of operation (auto / manual) and data transfer (file transfer). This window also shows the ongoing process.

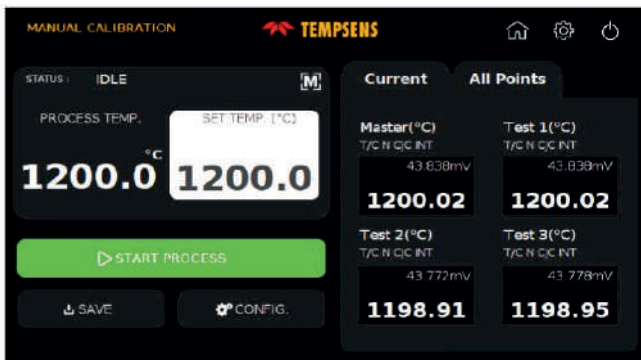


Sensor Configuration: In this screen user select the sensors Thermocouple (J, K, B, N, R, S, T type) / RTD(PT 100, PT 1000, PT50 etc.) for calibration with their serial number and temperature unit (C/F/K).

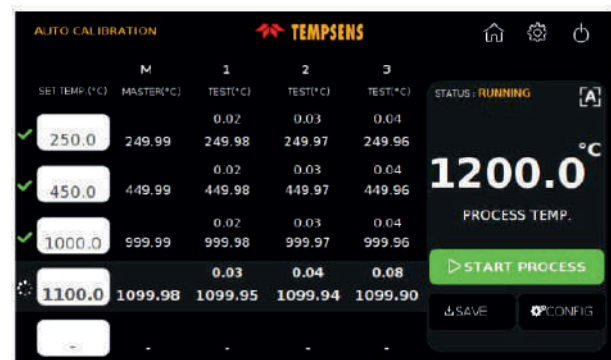


CALsys -100/40 Autocal have two operating modes i.e. Manual and Auto mode

Manual Mode: In this screen user set the temp. Point for calibration and on clicking start process button the process of calibration starts



Auto Mode: In this screen user sets the temperature Points for calibration (Max 5 Points)



SOFTWARE : Tempsens make Easy to use Customized software enables end user to access temperature data both for Manual mode and Automode



ACCESSORIES

- **Inserts for Autocal -100/40 & CALsys -100/40 models**

Inserts for Autocal -100/40 & CALsys -100/40 is made of special material having multiholes of 4x6.5 mm.

*We also offer customized hole size based on Customer requirements.

- **Reference Standard RTD**

- **Calsoft Software**

- **Operational Manual**

- **Carry Case**

- **NABL accredited calibration certificate (Optional)**

